

ABSTRACT

A melt phase process for making a polyester polymer melt phase product by adding an antimony containing catalyst to the melt phase, polycondensing the melt containing said catalyst in the melt phase until the It.V. of the melt reaches at least 0.75 dL/g. Polyester polymer melt phase pellets containing antimony residues and having an It.V. of at least 0.75 dL/g are obtained without solid state polymerization. The polyester polymer pellets containing antimony residues and having an It.V. of at least 0.70 dL/g obtained without increasing the molecular weight of the melt phase product by solid state polymerization are fed to an extruder, melted to produce a molten polyester polymer, and extruded through a die to form shaped articles. The melt phase products and articles made thereby have low b* color and/or high L* brightness, and the reaction time to make the melt phase products is short.